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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,505	06/14/2001	Bipul Binit Sinha	oracle01.016	7778
25247	7590	11/13/2007		
GORDON E NELSON PATENT ATTORNEY, PC 57 CENTRAL ST PO BOX 782 ROWLEY, MA 01969			EXAMINER LEROUX, ETIENNE PIERRE	
			ART UNIT 2161	PAPER NUMBER
			MAIL DATE 11/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	09/881,505		SINHA ET AL.	
	Examiner		Art Unit	
	Etienne P LeRoux		2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

Claims Status

Claims 2-31 are pending. Claim 1 has been cancelled. Claims 2-31 are rejected as detailed below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-31 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat No 5,335,343 (Lampson et al), hereafter Lampson.

Claims 5, 9, 10, 11, 22, 26, 30 and 31:

Lampson discloses:

receiving an augmented one of the messages from the other component [Lampson, send read message, step 81, item 81 sends a read vote to the coordinator, col 9, line 65] the other component having augmented the message by adding protocol state information to the message [subordinate sends a read-only message, col 9, lines 60-68], the protocol state information indicating a state of the other component that is relevant to the protocol [subordinate sends a read-only message, col 9, lines 60-68], retaining the state of the other component indicated in the augmented message [subordinate is known as read-only to the coordinator, col 10, lines 1-5]

using the retained state to optimize the protocol [subordinate does not need to be sent a commit or abort message, col 10, lines 1-5]

Claims 2, 6, 23 and 27:

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Lampson discloses the protocol ensures that the results of the transaction are consistent in the components and in the step of receiving an augmented one of the messages, the protocol state information indicates whether the transaction will modify data in the other component [Figs 5 and 13, col 10, lines 7-25]

Claim 3, 7, 24 and 28:

Lampson discloses the protocol being optimized is a two-phase commit protocol, and in the step of using the retained state to optimize the protocol the first component sends a message of the two-phase commit protocol that aborts the transaction to an other component when the other component's retained state indicates that the transaction does not modify the data in the other component [Fig 12, col 9, line 66 – col 10, line 6]

Claim 4, 8, 25 and 29:

Lampson discloses the distributed system is a distributed database system and the components are database systems therein [Fig 1]

Claim 12:

Lampson discloses the data storage device contains code which, when executed by a processor performs the method of claim 11 [Fig 2, 16]

Claim 13:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 2 [Fig 2, 16]

Claim 14:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 3 [Fig 2, 16]

Claim 15:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 4 [Fig 2,16]

Claim 16:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 5 [Fig 2,16]

Claim 17:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 6 [Fig 2,16].

Claim 18:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 7 [Fig 2, 16].

Claim 19:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 8 [Fig 2, 16].

Claim 20:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 9 [Fig 2, 16].

Claim 21:

Lampson discloses the data storage device contains code which, when executed by a processor, performs the method of claim 10 [Fig 2, 16].

Response to Arguments

Applicant's arguments filed 5/28/2007 have been carefully considered but are not persuasive for the following reasons.

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Applicant Argues:

Applicant states in the third paragraph of page 3 “A transaction here is an action that, if performed by the cohort, changes the state of the cohort. For example, a simple transaction may be an update of data contained in the cohort. The messages belonging to the transaction would include at least a message from the coordinator to the cohort which indicates that the data is to be updated and the new value and a message from the coordinator indicating that the update message has been received. These transaction messages are separate from the messages belonging to the protocol employed by the first component and the other component in making the transaction. The purpose of the protocol is to ensure that the cohorts that can be changed by the messages belonging to a transaction are either all changed by the transaction or none of them is changed by it, i.e., there is no inconsistency among the cohorts with regard to the transaction. See in this regard the discussion of the prior-art two-phase commit protocol beginning at page 15, line 15 of Applicant’s specification.”

Examiner Responds:

Examiner is not persuaded.

The preamble must be considered to the extent that the preamble breathes life into the claims. In claim 11, transaction is only included in the preamble and does not appear in the body of the claim. The body of the claim only includes messages. Examiner maintains that “messages belong[ing] to a transaction” as recited in the preamble of claim 11 denotes the messages and transaction are indistinguishable from each other. Examiner interprets messages and transaction to be an integral part of each other and messages and transaction can be used interchangeably without any loss of significance.

Examiner is required to interpret the claim language in light of the specification and not (emphasis added) in light of above convoluted attempt by applicant to explain the claim language. Applicant states “See in this regard the discussion of the prior-art two-phase commit protocol beginning at page 15, line 15 of Applicant’s specification.”

Admissions by Applicant Constitute Prior Art.

Based on above admission by applicant, examiner concludes that all subject matter starting at page 15, line 15 of the specification is prior art. Therefore, all material in the specification starting at page 15, line 15 lacks patentable material. MPEP 2128.01 Admissions by Applicant Constitute Prior Art.

Furthermore, examiner points out that “the prior-art two-phase commit protocol” is not included in the preamble or the body of claim 1.

Even if, examiner were to consider above explanation by applicant, applicant’s explanation is incomprehensible for the following reasons:

(1) the difference if any, between the following use of the term “transaction” is difficult to determine:

transaction that changes the state of the cohort

transaction which is simple

transaction to which messages belong

transaction messages

transaction which includes the other component

transaction which changes cohorts

transaction which includes consistent cohorts

(2) cohort is not included in claim 11

(3) coordinator is not included in claim 11

(4) the new value is indefinite because it is unclear because the difference if any, between data which is updated and new value is unclear.

(5) messages belonging to the protocol are not recited in the body of claim 11

(6) the first component and the other component are incomprehensible

As evidenced by above, applicant attempts to define “transaction” instead of pointing to the specification for a specific and deliberate definition of “transaction.” Examiner, similarly to applicant, was unable to find in the specification an express intent to impart a novel meaning to the claim terms and thus the words of the claim limitation(s) are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art. It is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the “ordinary” and the “customary” meaning of the terms in the claims. *Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009 (Fed. Cir. 2003).

The ordinary and customary meaning of a term may be evidenced by a variety of sources, including “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Phillips v. AWH Corp.*, 415 F.3d at 1314, 75 USPQ2d at 1327.

Examiner interprets “transaction” per the Microsoft Computer Dictionary, Fifth Edition to mean: A discrete activity within a computer system such as an entry of a customer order or an update of an inventory item. Transactions are usually associated with database management, order entry, and other online systems.

For purposes of this examination, examiner interprets “transaction as “a discrete activity within a computer.” As shown below, the disclosure of Lampson is in compliance with above definition of “transaction.”

Abstract Text (1):

A two-phase commit protocol for a distributed transaction processing system employs the presumed-commit configuration, with the exception that the new presumed-commit protocol coordinator needs to force-write only a "commit" log record for committed transactions, not the previous force writing of two log records. In order to provide information needed to allow the coordinator to answer inquiries from subordinate processes following a crash or loss of communications, a technique for circumscribing the set of indeterminate transactions is

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employed. The transactions are numbered in increasing order, identified by a transaction ID (T.sub.-- ID). The commit protocol is not allowed to begin unless the transaction ID of the committing transaction is within some preselected range of numbers starting from the highest-numbered stably-recorded transaction ID. That is, if the transaction number is too far removed from the highest TID of a stably stored log record (written to disk storage and able to survive a crash), then log records are written to disk until this condition hold. This may require writing to a disk log record for the committing transaction. Most commit transactions can, however, proceed without waiting for a disk write (forced log), and so performance is improved. A technique is disclosed for circumscribing the set of indeterminate transactions (not shown whether they committed, aborted or never started) so that information is small. It must be "permanently" retained, but the coordinator can store some of it in a cache (volatile memory) to answer inquiries.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pub No US 2002/0120696 (Mousseau et al) discloses forwarding a status signal to the host system
[paragraph 22]

US Pat No 6,952,741 (Bartlett et al) discloses "the synchronization program may then check the validity flag and return the status of the flag to the second program. [col 4, lines 63-65]

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

11/8/2007


ETIENNE LEROUX
PRIMARY EXAMINER